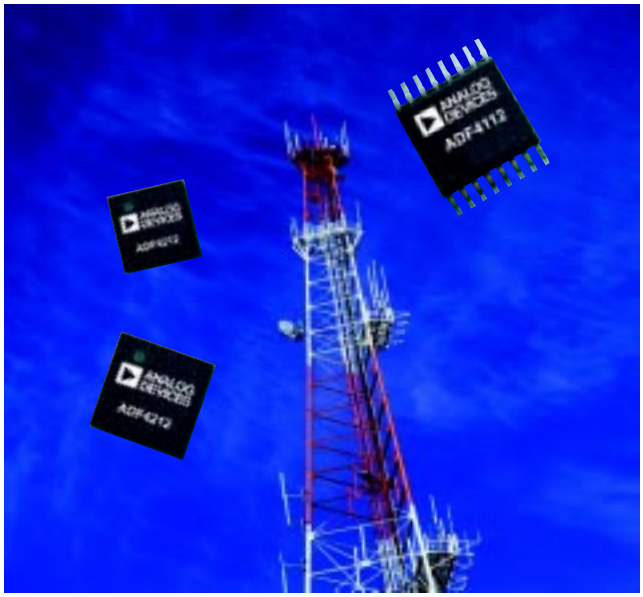
ADF4000 Series

Integer-N PLL Frequency Synthesizers



Analog Devices' ADF4000 series offer a choice of industry-standard pinout with improved performance, or new pinout with increased software programmability.

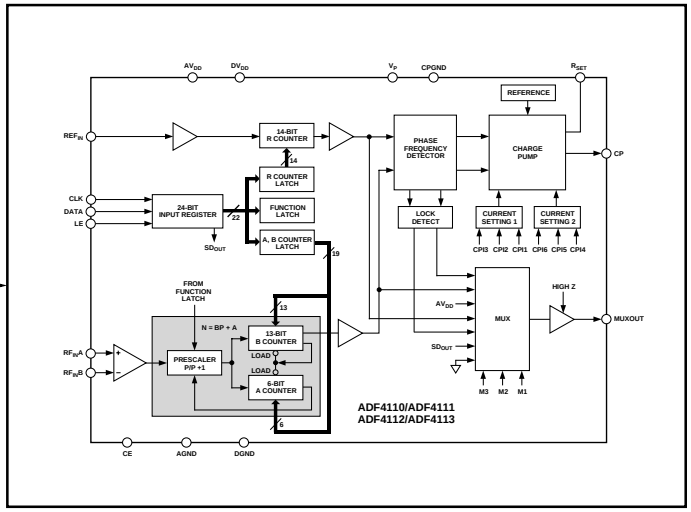
Features

- Pin-compatibility with LMX-23xx series synthesizers allows easy system performance improvements with no hardware or software changes.
- Proprietary pinout versions allow additional flexibility and system optimization.
- All devices available in 16-pin TSSOP and 20-lead LPCC 4 x 4 mm chip-scale packages.
- Wide operating power supply range (+2.7 to +5.5 Volts), with separate Vp for extended tuning range in 3-Volt systems.
- Low supply current (typically 4.5 mA for the lower-frequency devices, slightly higher for devices operating above 1.2 GHz); all devices include low-current standby mode.
- Evaluation boards and software are available for all devices.

Improve Performance to 6GHz with New PLL Synthesizers in Proprietary and Industry-Standard Pinouts

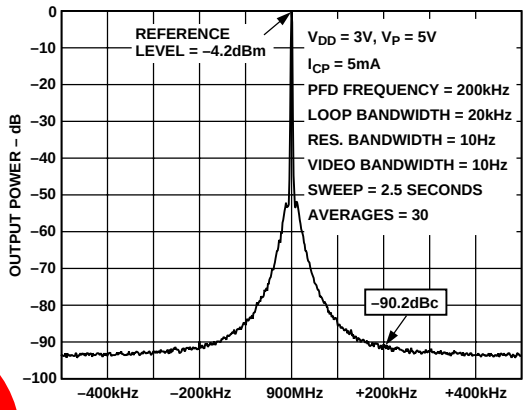
Phase-Locked-Loop (PLL) frequency synthesizers are used in a wide range of RF applications. They are used to generate digitally-programmable frequencies, with the stability and accuracy determined by a fixed-frequency reference source. PLLs are used for IF and LO generation for transmit and receive paths in fixed and portable wireless equipment as well as wired communications systems such as CATV and test equipment and instrumentation.

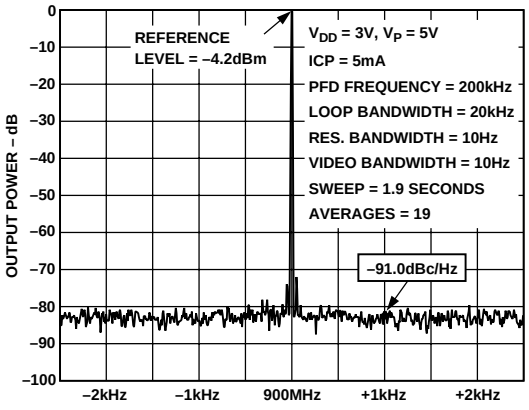
Key parameters of PLL ICs include maximum frequency, phase noise, and power consumption. Analog Devices PLLs are available with operating frequencies to 6 GHz, with phase noise down to –92dBc/Hz. All operate on 2.7 to 5.5 V supplies, with a separate power supply pin for the charge pump. Current consumption is as low as 4.5 mA. Both single and dual versions are available, in both industry-standard "LMX" pinouts and proprietary pinouts offering greater flexibility allowing many more features to be software-controlled, including prescaler division ratio, anti-backlash pulse width, and charge-pump current. In addition to ADI's impressive line of current PLL offerings, ADI has introduced it's low power (or "L" variant) products aimed at minimizing power drain while maximizing phase-noise performance.



ANALOG DEVICES

ADF4000 Series PLL Synthesizers





UP TO 6dB BETTER

Single PLL Selection Table			Dual PLL Selection Table		
Model	Max. Freq.	NS Model	Model	Max. Freq.	NS Model
ADF4001	200MHz	NA	ADF4210	0.55/1.2GHz	NA
ADF4110	550MHz	NA	ADF4211	0.55/2.0GHz	NA
ADF4112	1.2GHz	NA	ADF4212	0.9/2.7GHz	NA
ADF4113	3.0GHz	NA	ADF4213	0.9/3.0GHz	NA
ADF4106	6.0GHz	NA	ADF4206	0.5/0.5GHz	LMX2337
ADF4116	550MHz	LMX2306	ADF4207	1.1/1.1GHz	LMX2335
ADF4117	1.2GHz	LMX2316	ADF4208	1.1/2.0GHz	LMX2336
ADF4118	2.8GHz	LMX2326	ADF4216	0.5/1.2GHz	LMX2332
			ADF4217	0.5/2.0GHz	LMX2331
			ADF4217L	0.5/2.0GHz	LMX2331L
			ADF4218	0.5/2.5GHz	LMX2330
			ADF4218L	0.5/2.5GHz	LMX2330L
			ADF4219L	.045/2.5GHz	LMX2370

Note: “L” denotes a lower power consumption option available (Example: ADF4217L)

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